ELSEVIER

Volume 306, Numbers 1–2, 23 June 2000

Journal of ALLOYS AND COMPOUNDS

www.elsevier.com/locate/jallcom

Contents

Letter

Thermodynamics of binary liquid Cu–Hf alloys L1
V.V. Berezutski and M.I. Ivanov (Kyiv, Ukraine)

Physics

Magnetic properties of a single crystal of the metamagnetic compound $(Fe_{0.98}Ru_{0.02})_2P$ 1
T. Oki, T. Sato, Y. Uwatoko (Saitama, Japan), H. Fujii (Higashi Hiroshima, Japan) and A.V. Andreev (Prague, Czech Republic)

EPR spectra of $CuIr_2S_4$ 6
H. Kang, K. Bärner (Göttingen, Germany), H. Rager, U. Sondermann (Marburg, Germany), P. Mandal (Calcutta, India), I.V. Medvedeva (Ekaterinburg, Russia) and E. Gmelin (Stuttgart, Germany)

Phase equilibria and magnetic studies in the ternary system U–Au–Sn 11
P. Boulet, M. Vybornov and H. Noël (Rennes, France)

Experimental study of the enthalpy of holmium trifluoride in solid and liquid states 17
K.M. Lyapunov, A.V. Baginskii and S.V. Stankus (Novosibirsk, Russia)

Crystal structure, magnetic and electrical properties of $M'M_2In$ (M'=Ti, Hf; M=Ni, Cu) 21
V.P. Dubenskyy, V.I. Zaremba (L'viv, Ukraine), Ya.M. Kalychaka (Wrocław, Poland), L.D. Gulay (L'viv, Ukraine), D. Kaczorowski, J. Stępień-Damm and M. Wocłyrz (Wrocław, Poland)

Compressibility measurements on iridium 26
Y. Cerenius (Lund, Sweden) and L. Dubrovinsky (Uppsala, Sweden)

On the structural polymorphism of $CePt_2Sn_2$: experiment and theory 30
H.-p. Liu, M. Colarieti-Tosti, A. Broddefalk, Y. Andersson (Uppsala, Sweden), E. Lidström (Grenoble, France) and O. Eriksson (Uppsala, Sweden)

Sample quality and the magnetic phase transitions in $Nd_3Pd_{20}Ge_6$: a neutron diffraction study 40
A. Dönni (Niigata, Japan), F. Fauth (Grenoble, France), P. Fischer, T. Herrmannsdörfer, L. Keller (Villigen PSI, Switzerland) and T. Komatsubara (Sendai, Japan)

Magnetic ordering in $TbMn_{6-x}Cr_xSn_6$ (x=1, 2) compounds studied by neutron diffraction and magnetic measurements 47
P. Schobinger-Papamantellos (Zürich, Switzerland), G. André, J. Rodriguez-Carvajal (Gif-sur-Yvette, France), H.G.M. Duijn and K.H.J. Buschow (Amsterdam, The Netherlands)

^{161}Dy and ^{57}Fe Mössbauer effect studies of $Dy[(Fe_{0.4}\ Co_{0.6})_{1-x}\ Mn_x]_2$ intermetallics 56
J. Pszczoła, J. Żukrowski (Kraków, Poland), J. Suwalski (Świerk-Otwock, Poland) and A. Pańta (Kraków, Poland)

Crystal structure and magnetic properties of the compound MnN 66
K. Suzuki (Tsuruoka, Japan), T. Kaneko, H. Yoshida, Y. Obi, H. Fujimori (Sendai, Japan) and H. Morita (Yonezawa, Japan)

Influence of substitution in Al sublattice on 5f band metamagnetism of UCoAl 72
A.V. Andreev, V. Sechovský (Prague, Czech Republic), N.V. Mushnikov (Ekaterinburg, Russia), T. Goto (Chiba-ken, Japan), Y. Homma and Y. Shiokawa (Sendai, Japan)

Chemistry

Vaporization thermodynamics and heat capacities of Ti_5Ge_3 and Ti_6Ge_5 78
S. Zarembo, R.J. Kematick, C.E. Myers and E.J. Cotts (Binghamton, NY, USA)

Continuous recovery of concentrated solute from the melt by countercurrent electromigration 87
M. Matsumiya, H. Matsuura, R. Takagi (Tokyo, Japan) and R. Fujita (Kawasaki, Japan)

New cell volume expanded, elevated temperature orthorhombics $YBa_2Cu_3O_{6.5}$ and their T_c~50 K plateau on time dependent transitions to volume contracted orthorhombics at room temperature 96
H. Oesterreicher and J. O'Brien (La Jolla, CA, USA)

Elsevier Science S.A.

Microstructural evolution in B-site Mg-substituted $La_{0.9}Sr_{0.1}GaO_{3-\delta}$ oxide solid solutions 103
A.-M. Azad and L.F. Er (Selangor, Malaysia)

Environmental dependence of screened tight-binding parameters in $La_2Ni_{10}H_{14}$ 113
H. Nakamura, D. Nguyen-Manh and D.G. Pettifor (Oxford, UK)

Effect of Cr and Co additives on microstructure and electrochemical performance of $Zr(NiVMn)_2M_{0.1}$ alloys 122
K.Y. Shu (Shanghai, PR China), X.G. Yang, S.K. Zhang, G.L. Lü, Y.Q. Lei and Q.D. Wang (Hangzhou, PR China)

Trigonal $SrAl_2H_2$: the first Zintl phase hydride 127
F. Gingl (Tsukuba, Japan), T. Vogt (Long Island, NY, USA) and E. Akiba (Tsukuba, Japan)

Crystal Structure of $La_{1-x}Sr_xMnO_{3-2x+\delta}F_{2x}$ 133
Y. Guo (Uppsala, Sweden), X. Zhang (Lund, Sweden) and R. Wäppling (Uppsala, Sweden)

Synthesis of Sr_2PrO_4: a Pr^{4+}-containing oxide in the Sr_2PbO_4 structure type 141
J.E. Fiscus and H.-C. zur Loye (Columbia, SC, USA)

A comparative study of mutual separation characteristics for binary mixed oxides Y_2O_3–Ln_2O_3 (Ln=Sc, La, Nd and Sm) using stepwise chlorination–chemical vapor transport reaction mediated by vapor complexes $LnAl_nCl_{3n+3}$ 146
Y.-H. Sun (Hebei, China), L.-Q. Zhang, Z.-C. Wang and L. Guo (Liaoning, China)

Preparation of layered manganites: oxygen content as a variable parameter of the bilayer compound 151
K. Ruck, M. Sgraja, G. Krabbes, K. Dörr, K.-H. Müller (Dresden, Germany) and M. Khristov (Sofia, Bulgaria)

Electroless deposition of amorphous Ni–Re–P alloys from acidic hypophosphite solutions 158
D. Mencer (Hazleton, PA, USA)

The crystal structures of two new Ba borates: pentaborate hydrate, $Ba[B_5O_8(OH)]\cdot H_2O$, and decaborate, $LiBa_2[B_{10}O_{16}(OH)_3]$ 163
D.Yu. Pushcharovsky (Moscow, Russia), S. Merlino, O. Ferro (Pisa, Italy), S.A. Vinogradova and O.V. Dimitrova (Moscow, Russia)

Syntheses, crystal structures, and band gaps of $Cs_2Cd_3Te_4$ and $Rb_2Cd_3Te_4$ 170
A.A. Narducci and J.A. Ibers (Evanston, IL, USA)

Crystal structure of $Nb_2Te_4O_{13}$ 175
S. Blanchandin, J.C. Champarnaud-Mesjard, P. Thomas and B. Frit (Limoges, France)

Metallurgy

The welding characteristics of Fe–30Mn–6Si and Fe–30Mn–6Si–5Cr shape memory alloys 186
H.C. Lin, K.M. Lin, Y.C. Chuang and T.S. Chou (Taiwan, Republic of China)

Neutron powder diffraction investigations of $Nb_3(Al_{0.84}Nb_{0.16})$ and $Nb_3(Al_{0.84}Nb_{0.16})^2H_{2.52}$ 193
Y. Andersson (Uppsala, Sweden), T. Larsson (Hallstahammar, Sweden), B. Noläng and S. Rundqvist (Uppsala, Sweden)

Single-crystal growth and electrical properties of B_nSi (n=18) 197
M. Imai, T. Kimura, K. Sato and T. Hirano (Ibaraki, Japan)

Materials Science

A new hexagonal Laves phase deuteride $CeMn_{1.5}Al_{0.5}D_x$ ($0<x<4$). Investigated by in situ neutron diffraction 203
K.J. Gross (Livermore, CA, USA), D. Chartouni (Fribourg, Switzerland and Osaka, Japan) and F. Fauth (Villigen PSI, Switzerland)

Effects of Ti on the cycle life of amorphous MgNi-based alloy prepared by ball milling 219
S.-C. Han, P.S. Lee, J.-Y. Lee (Taejon, South Korea), A. Züttel and L. Schlapbach (Fribourg, Switzerland)

A neutron diffraction study of non-stoichiometric α-KYW_2O_8 227
E. Gallucci, C. Goutaudier, M.Th. Cohen-Adad (Villeurbanne, France), B.F. Mentzen (Meyzieu, France) and T. Hansen (Grenoble, France)

Structure and related properties of $(La,Ce,Nd,Pr)Ni_5$ alloys 235
L.O. Valøen (Trondheim, Norway), A. Zaluska, L. Zaluski (Montreal, Canada), H. Tanaka, N. Kuriyama (Osaka, Japan), J.O. Ström-Olsen (Montreal, Canada) and R. Tunold (Trondheim, Norway)

Equilibrium phases in the Zr–Ti–Sn system at 1100°C 245
S.F. Aricó and L.M. Gribaudo (Buenos Aires, Argentina)

Nanocrystalline NiSi alloy as an anode material for lithium-ion batteries 249
G.X. Wang, L. Sun, D.H. Bradhurst, S. Zhong, S.X. Dou and H.K. Liu (Wollongong, Australia)

A zinc coating method for Nd–Fe–B magnets 253
A. Walton, J.D. Speight, A.J. Williams and I.R. Harris (Birmingham, UK)

Two types of checkerboard-like microstructures in Au–Cu–Pd ternary alloys 262
H. Winn, Y. Tanaka, T. Shiraishi (Nagasaki, Japan), K. Udoh (Fukuoka, Japan), E. Miura, R.I. Hernandez, Y. Takuma and K. Hisatsune (Nagasaki, Japan)

Oxidation behavior of 6061aluminium/albite composites at high temperature 270
S.C. Sharma (Karnataka, India), K.H.W. Seah (Singapore, Singapore), M. Krishna and A. Ramesh (Karnataka, India)

Structural characterization of the aged Inconel 718 277
C. Slama (Medjez El Bab, Tunisia) and M. Abdellaoui (Tunis, Tunisia)

$MoSi_2$ coating on molybdenum using molten salt 285
R.O. Suzuki, M. Ishikawa and K. Ono (Kyoto, Japan)

Effect of microstructure on fracture behavior of Al_2O_3/Al composite by reactive metal penetration 292
C.-G. Ha, Y.-G. Jung (Kyungnam, South Korea) and U. Paik (Seoul, South Korea)

Synthesis of β-Ga_2O_3 nanorods 300
J.Y. Li, Z.Y. Qiao, X.L. Chen, L. Chen, Y.G. Cao, M. He, H. Li, Z.M. Cao and Z. Zhang (Beijing, PR China)

Transport properties of rapid solidified Fe–Si–Mn–Cu thermoelectric alloys 303
X.B. Zhao, T.J. Zhu, S.H. Hu, B.C. Zhou and Z.T. Wu (Hangzhou, PR China)

Author Index of Volume 306 307

Subject Index of Volume 306 309

Keyword list